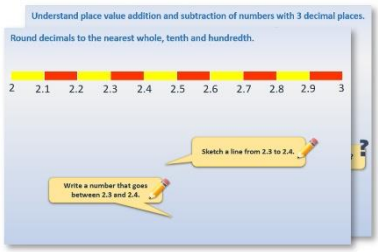
Year 4: Week 1, Day 1
Decimals on number lines

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**.
They come from our *PowerPoint* slides.



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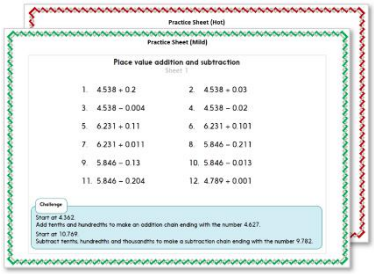
2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



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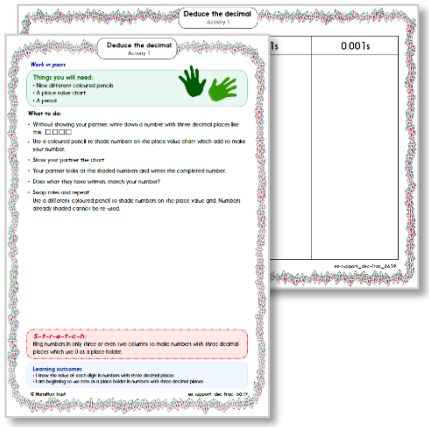
3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**



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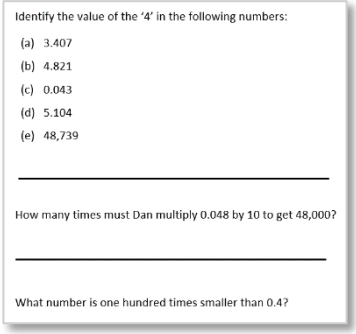
4. Have I mastered the topic? A few questions to **Check your understanding**.
Fold the page to hide the answers!



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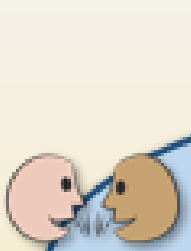
Learning Reminders

Relate fractions to decimals ($0.1 = {}^{1}/_{10}$, $0.2 = {}^{1}/_{5}$).



What fraction on the counting stick is the arrow pointing to? What other ways can you write or say that?

${}^{2}/_{10}$ as a fraction or ${}^{1}/_{5}$ in its simplest form.

Or 0.2 as a decimal.

$0.2 \equiv {}^{1}/_{5} \equiv {}^{2}/_{10}$

They are each equivalent, different ways of saying the same amount!

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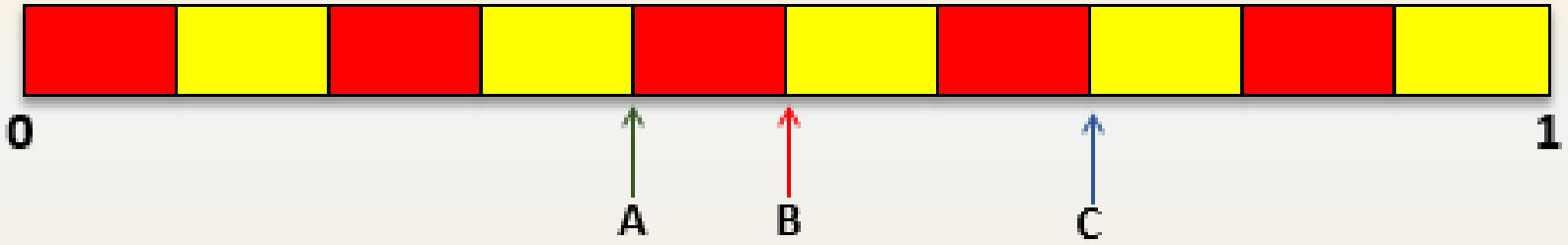
Learning Reminders

Relate fractions to decimals ($0.1 = {}^{1}/_{10}$, $0.2 = {}^{1}/_{5}$).



What decimals are the letters pointing to? How else can we write these?

A. $0.4 \equiv {}^{4}/_{10} \equiv {}^{2}/_{5}$

B. $0.5 \equiv {}^{5}/_{10} \equiv {}^{1}/_{2}$

C. $0.7 \equiv {}^{7}/_{10}$

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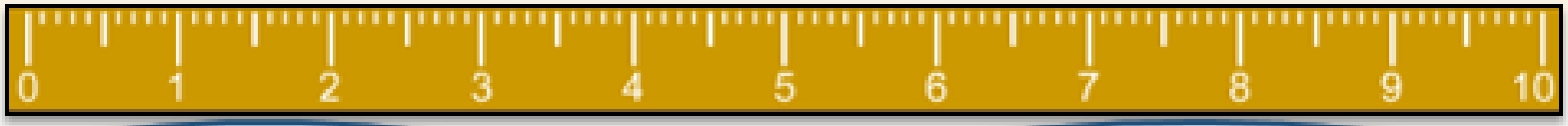
Learning Reminders

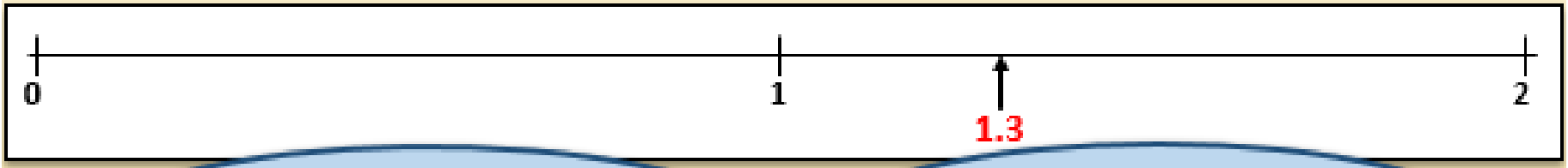
Relate 1-place decimals to cm and mm; Mark numbers with 1 decimal place on number lines; Round numbers with 1 decimal place to the nearest whole



Measuring each other's fingernails to the nearest millimetre.

If a fingernail is **1cm 3mm** long we can also write that as **13mm**.

The **3** in 1.**3**cm is $^{3}/_{10}$ of a cm or **3**mm. What is this measurement to the nearest whole cm?



Let's mark 1.3 on this 0-2 line.

Is it closer to 1 or to 2?

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Practice Sheet Mild

Placing decimals on lines

Place these decimals on the line. Draw a line from each decimal to round to the nearest whole number.
Remember that we round up numbers ending in 5.

1.5, 0.9, 3.2, 4.7, 2.4

7.5, 5.7, 9.9, 6.3, 8.8

Challenge

Write two new numbers between 3 and 4, each with one decimal place.
One number must round **up**, and the other must round **down**.

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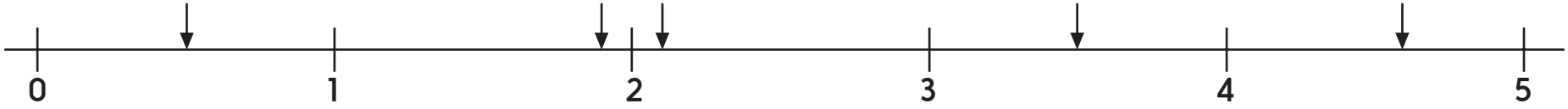
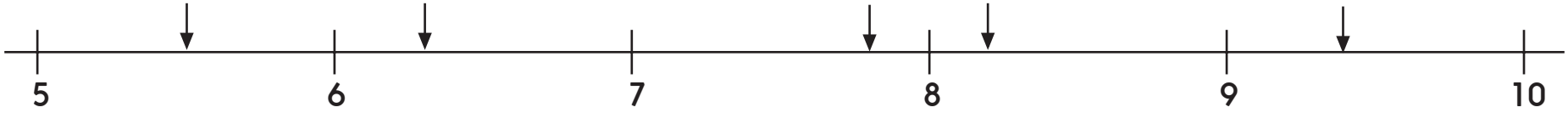
Practice Sheet Hot

Identifying decimals on lines

Label the mystery decimals. Draw a line from each decimal to round to the nearest whole number.





Challenge

Write a different number with one decimal place which rounds **up** to 5.Write a different number with one decimal place which rounds **down** to 5.

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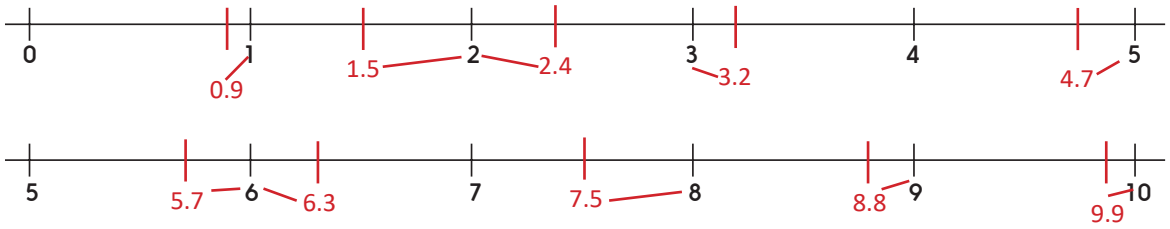
Practice Sheets Answers

Placing decimals on lines (mild)



Identifying decimals on lines (hot)

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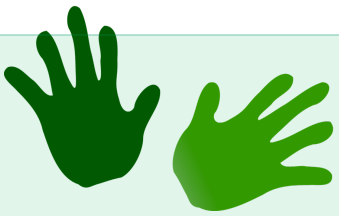
A Bit Stuck?
Decimals are a snip

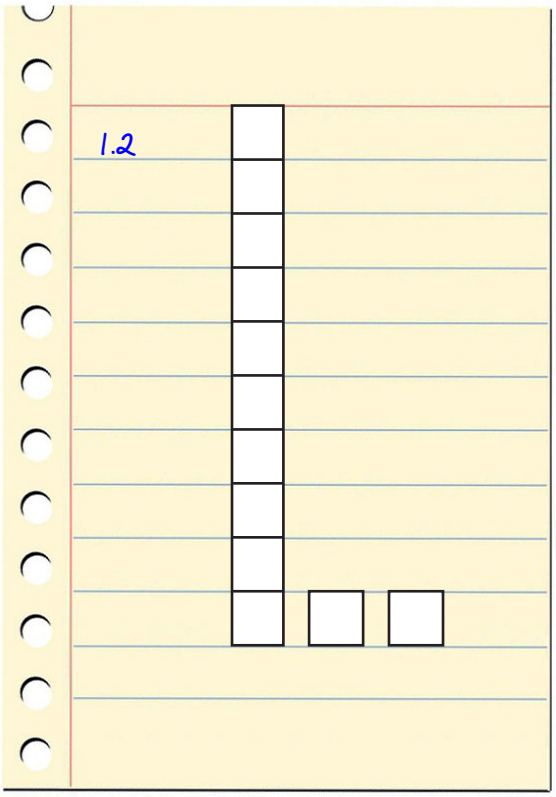
Work in pairs, but stick your fraction strips into your own book/on paper

Things you will need:
- Tenths strips
- Scissors
- Glue sticks



What to do:

- Choose at least three numbers less than 1 and at least three numbers more than 1 to show using your tenths strips.
- Look at each number written in the table below.
- Write the number and stick the strips by the side.



1s	0.1s
0	2
0	7
1	2
2	1
2	4
1	8
0	6
1	5
2	3

S-t-r-e-t-c-h:

Write all your numbers in order from smallest to largest.

Learning outcomes:
- I can understand the value of each digit in numbers with one decimal place.
- I am beginning to order numbers with one decimal place.

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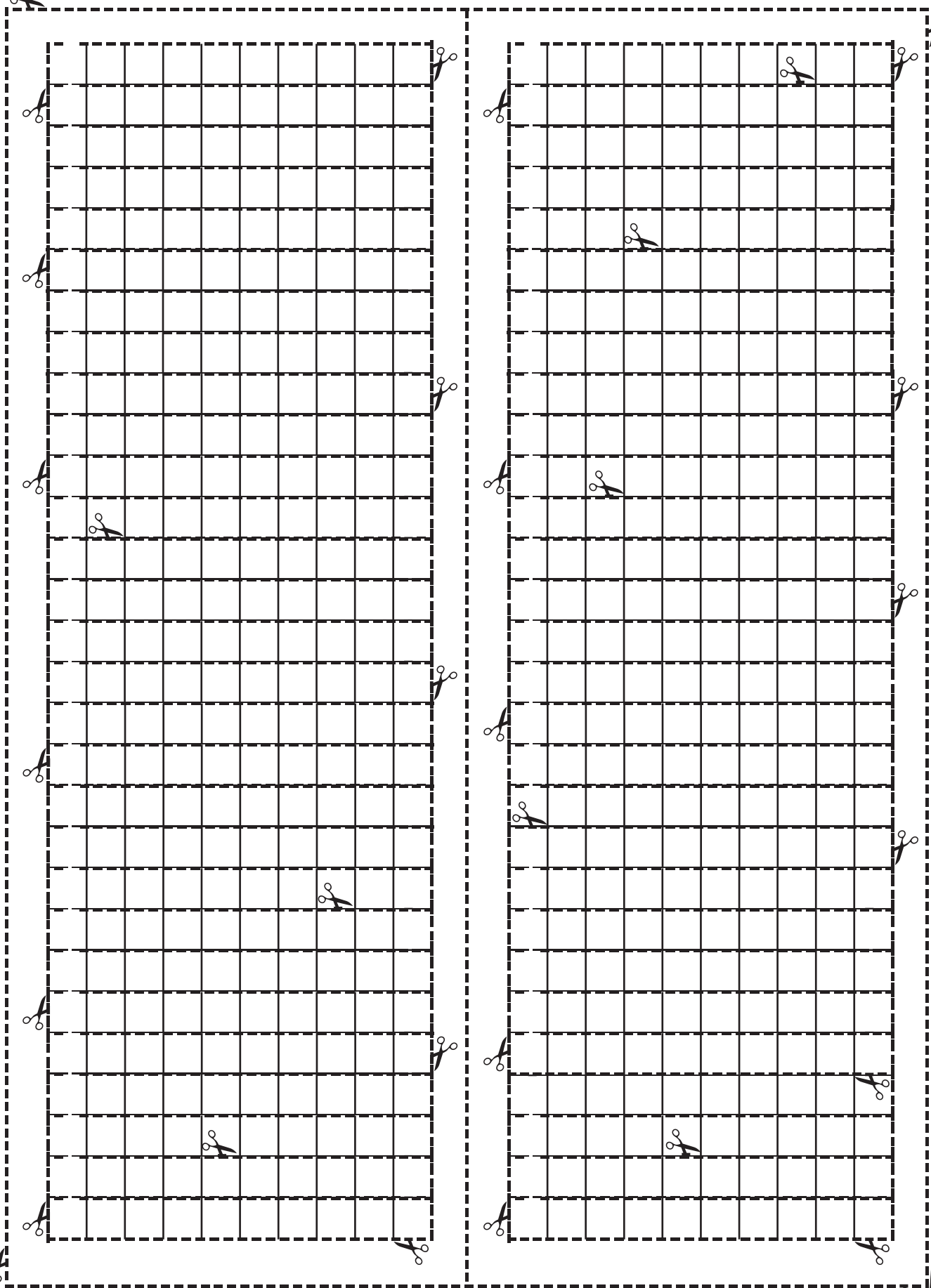
A Bit Stuck?

Decimals are a snip



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Check your understanding

Questions

Write each number as a decimal:
(i) One and four tenths
(ii) $^{6}/_{10}$
(iii) $10^{2}/_{10}$ (ten and two tenths)
(iv) One half
(v) One fifth

Billy measured his mobile phone.
These were its dimensions:
Length = 12cm and 8mm
Width = 64mm
Thickness = 8mm
Write these as numbers of centimetres, with a decimal place if necessary.

Write four numbers with one decimal place between 3 and 4. Two should be closer to 3 and then 4 and two should be closer to 4 than 3.

Fold here to hide answers

Check your understanding

Answers

Write each number as a decimal:
(i) One and four tenths 1.4
(ii) $^{6}/_{10}$ 0.6
(iii) $10^{2}/_{10}$ (ten and two tenths) 10.2
(iv) One half 0.5
(v) One fifth 0.2
Check on a fraction/decimal number line.

Billy measured his mobile phone.
These were its dimensions:
Length = 12cm and 8mm 12cm and 0.8cm
Width = 64mm 6.4cm
Thickness = 8mm 0.8cm
Write these as numbers of centimetres, with a decimal place if necessary.

Write four numbers with one decimal place between 3 and 4. Two should be closer to 3 and then 4 and two should be closer to 4 than 3. E.g. 3.2 and 3.4, and 3.6 and 3.9.

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